

PROJECT DESCRIPTION

GENERAL

THIS PORTION OF THE PROJECT INVOLVES THE MODIFICATION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 4 (PENNSYLVANIA AVENUE) AT WESTPHALIA ROAD IN PRINCE GEORGE'S COUNTY. GEOMETRIC MODIFICATIONS ARE PROPOSED TO PROVIDE A SOUTHBOUND DOUBLE RIGHT-TURN LANE. IN ADDITION, THE EXISTING MEDIANS ON THE SIDE STREET WILL BE REMOVED SO THAT ADDITIONAL LANES CAN BE MARKED, LED VEHICULAR TRAFFIC SIGNALS WILL BE INSTALLED FOR THE NORTH AND SOUTH LEGS. VIDEO DETECTION IS ALSO PROPOSED FOR PRESENCE DETECTION ON THE SIDE STREET. MICROLOOP PROBES ARE ALSO PROPOSED FOR SETBACK DETECTION ALONG THE SIDE STREET. ALL EXISTING DETECTION AND TRAFFIC SIGNAL HEADS ALONG MD 4 WILL REMAIN. MD 4 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL CONTINUE TO OPERATE IN A NEMA SIX-PHASE, FULL-TRAFFIC ACTUATED MODE. EXCLUSIVE LEFT-TURN PHASING WILL BE MAINTAINED ON MD 4. THE NORTH- AND SOUTHBOUND SIDE STREET SPLIT WILL ALSO REMAIN. THE SIDE STREET SPLIT WILL BE REVERSED TO INCREASE THE GREEN TIME AND OVERLAP FOR THE SOUTHBOUND DOUBLE RIGHT TURN.

CONTROLLER REQUIREMENTS

THE EXISTING BASE MOUNTED TRAFFIC SIGNAL CONTROLLER WILL REMAIN. THE SHA SIGNAL SHOP WILL INSTALL A VIDEO DETECTION CAMERA INTERFACE FOR 1-4 CAMERAS IN THE EXISTING CABINET.

THE CONTACT PERSONS FOR DISTRICT #3 ARE AS FOLLOWS:

Mr. Brian Young  
Assistant District Engineer - Traffic  
Phone: 301-513-7358

Mr. Augie Reblish  
Assistant District Engineer - Utility  
Phone: 301-513-7350

Mr. Wayne Mowdy  
Assistant District Engineer - Maintenance  
Phone: 301-513-7304

Mr. Richard L. Daff Sr.  
Chief, Traffic Operations Division  
Phone: 410-787-7630

Mr. Edward Rodenhizer  
Chief, SHA Traffic Signal Shop  
Phone: 410-787-7652

The Power Company Representative is:  
Potomac Electric Power Company  
4061 Powder Mill Road, Suite 600  
Calverton, Maryland 20705  
Phone: 301-931-2880

EQUIPMENT LIST 'A'

APPROVED SHA EQUIPMENT TO BE PURCHASED BY THE DEVELOPER AND INSTALLED BY THE CONTRACTOR. ALL EQUIPMENT IN THIS LIST SHALL HAVE CATALOG CUTS SUBMITTED FOR APPROVAL PRIOR TO INSTALLATION.

CAT CODE	QUANTITY	DESCRIPTION
800000	1 EA	VIDEO DETECTION CAMERA INTERFACE (1-4 CAMERAS)
800000	6 EA	8 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION
800000	109 SF	FURNISH AND INSTALL SHEET ALUMINUM SIGNS - MAST ARM/GROUND MOUNT 1 EA - SHIELD ASSEMBLY (36"x75") "WEST, MD 4, LEFT ARROW" 1 EA SHIELD ASSEMBLY (24"x51") "EAST, MD 4, RIGHT ARROW" 1 EA - SHIELD ASSEMBLY (36"x75") "EAST, MD 4, LEFT ARROW" 1 EA - SHIELD ASSEMBLY (24"x51") "WEST, MD 4, RIGHT ARROW" 3 EA - R3-5L (30"x36") 1 EA - R3-6L (30"x36") 1 EA - R10-11b (30"x30")
800000	3 EA	12 INCH OPTICALLY PROGRAMMED TRAFFIC SIGNAL HEAD SECTION
810550	2 EA	MICROLOOP PROBE, 500 FOOT LEAD-IN CABLE
810555	2 EA	MICROLOOP PROBE, 1000 FOOT LEAD-IN CABLE
816001	3 EA	VIDEO DETECTION CAMERA
816005	2 EA	CONTROL CABLE, 250 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER
816010	1 EA	CONTROL CABLE, 500 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER
818010	1 EA	14 FOOT BREAKAWAY PEDESTAL POLE
818030	1 EA	STEEL POLE WITH A SINGLE 38 FOOT MAST ARM
860284	22 EA	12 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION

EQUIPMENT LIST 'B'

EQUIPMENT TO BE PURCHASED BY THE DEVELOPER AND INSTALLED BY THE CONTRACTOR. ALL EQUIPMENT IN THIS LIST SHALL HAVE CATALOG CUTS SUBMITTED FOR APPROVAL PRIOR TO INSTALLATION.

CAT CODE	QUANTITY	DESCRIPTION
120500	1 LS	MAINTENANCE OF TRAFFIC
203030	1 CY	TEST PIT EXCAVATION
585424	90 LF	24 INCH WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
800000	1 EA	AS BUILT FOR SHA ON CADD
801004	6 CY	CONCRETE FOR SIGNAL FOUNDATION
802501	180 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
805135	90 LF	3 INCH SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - TRENCHED
805160	30 LF	1 INCH LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT FOR DETECTOR SLEEVE
811011	1 EA	ELECTRICAL HANDHOLE
837001	2 EA	GROUND ROD - 3/4 INCH DIAMETER BY 10 FOOT LENGTH
861107	125 LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
861108	1425 SF	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)

EQUIPMENT LIST 'C'

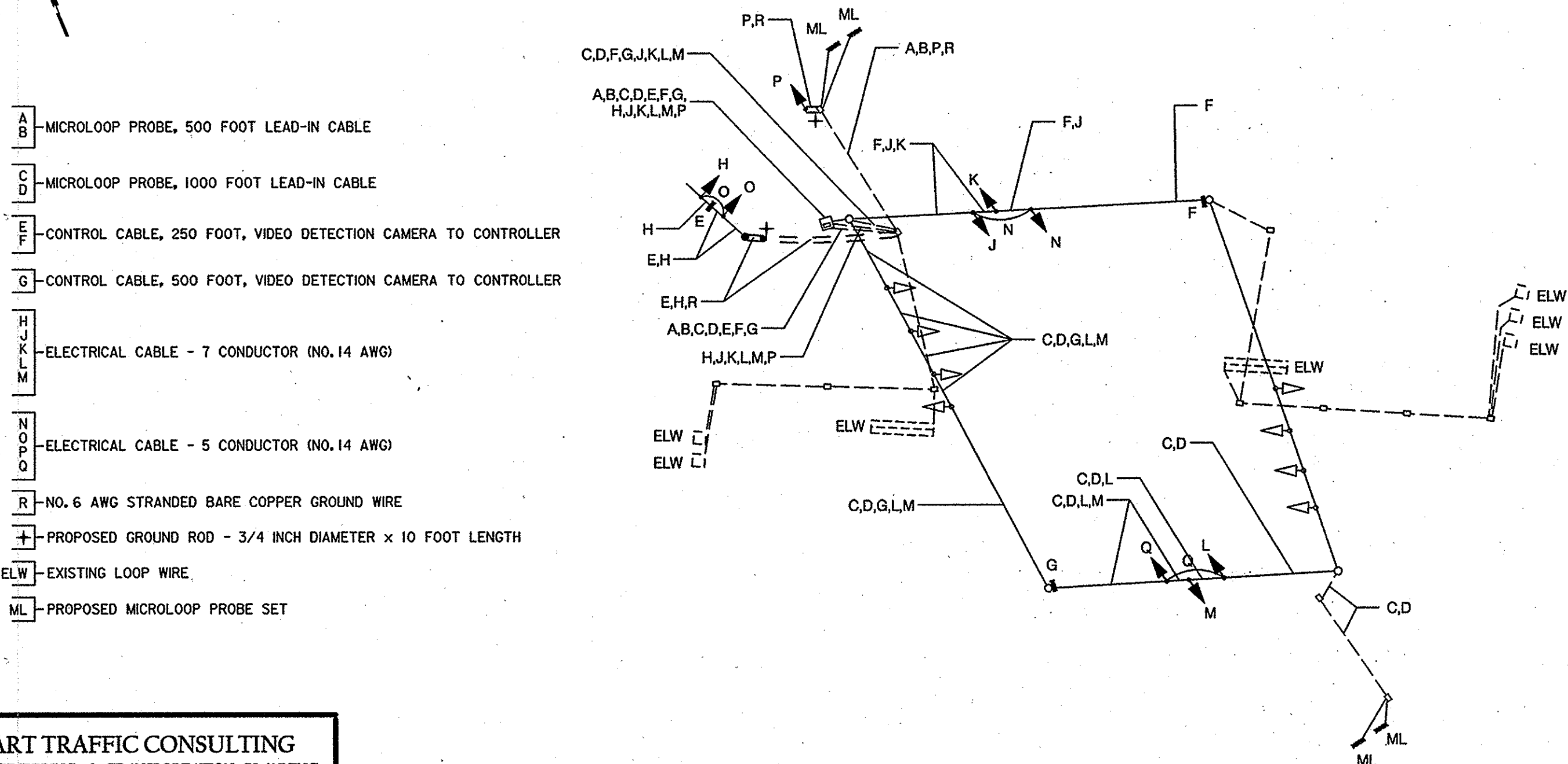
EQUIPMENT TO BE REMOVED AND RETURNED TO SHA.

CAT CODE	QUANTITY	DESCRIPTION
NONE	-	ALL EQUIPMENT REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
	⬅	⬅	⬅	⬅	⬅	⬅	⬅	⬅	⬅	⬅	⬅	⬅	⬅	⬅	⬅	⬅	⬅	
PHASE 1 + 5	⬅	⬅	R	R	⬅	⬅	R	R	R	R	R	R	⬅	⬅	⬅	R	R	
PHASE 1 + 5 CHANGE	THE CONTROLLER MAY SKIP TO PHASE 1 + 6, 2 + 5 OR 2 + 6																	
PHASE 1 + 6	⬅	⬅	G	G	⬅	⬅	R	R	R	R	G	G	⬅	⬅	⬅	R	R	
PHASE 1 CHANGE	⬅	⬅	G	G	⬅	⬅	R	R	R	R	G	G	⬅	⬅	⬅	R	R	
PHASE 2 + 5	⬅	⬅	R	R	⬅	⬅	G	G	R	R	R	R	⬅	⬅	⬅	R	R	
PHASE 5 CHANGE	⬅	⬅	R	R	⬅	⬅	G	G	R	R	R	R	⬅	⬅	⬅	R	R	
PHASE 2 + 6	⬅	⬅	G	G	⬅	⬅	G	G	R	R	R	R	⬅	⬅	⬅	R	R	
PHASE 2 + 6 CHANGE	⬅	⬅	Y	Y	⬅	⬅	Y	Y	R	R	R	R	⬅	⬅	⬅	R	R	
PHASE 3	⬅	⬅	R	R	⬅	⬅	R	R	G	G	G	R	⬅	⬅	⬅	R	R	
PHASE 3 CHANGE	⬅	⬅	R	R	⬅	⬅	R	R	Y	Y	Y	R	⬅	⬅	⬅	R	R	
PHASE 4	⬅	⬅	R	R	⬅	⬅	R	R	R	R	R	G	⬅	⬅	⬅	G	G	
PHASE 4 CHANGE	⬅	⬅	R	R	⬅	⬅	R	R	R	R	R	Y	⬅	⬅	⬅	Y	Y	
PRE-EMPT 1	⬅	⬅	R	R	⬅	⬅	R	R	G	G	G	R	⬅	⬅	⬅	R	R	
PRE-EMPT 1 CHANGE	⬅	⬅	R	R	⬅	⬅	R	R	Y	Y	Y	R	⬅	⬅	⬅	R	R	
FLASHING OPERATION	FL/RA	FL/RA	FL/Y	FL/Y	FL/RA	FL/RA	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/RA	FL/RA	FL/RA	FL/R	FL/R	

WIRING DIAGRAM



LENHART TRAFFIC CONSULTING  
TRAFFIC ENGINEERING & TRANSPORTATION PLANNING

331 Redwood Grove Court Millersville, Maryland 21108  
Tel: (410) 987-3888 Fax: (443) 782-2288

SHA

STATE OF MARYLAND  
DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION  
OFFICE OF TRAFFIC & SAFETY  
TRAFFIC ENGINEERING DESIGN DIVISION

MD 4 (PENNSYLVANIA AVENUE) AT WESTPHALIA ROAD

GENERAL INFORMATION

SCALE NONE DATE JAN 2007 CONTRACT NO. BW980M82

DESIGNED BY MML COUNTY PRINCE GEORGE'S

DRAWN BY MML LOGMILE 16000409.07

CHECKED BY MML T.I.M.S. NO. 1-260

F.A.P. NO. TOD NO.

DRAWING NO. TS-493F-G1 OF SHEET NO. 5 OF 5